

In the claims:

Listing of claims:

Claims 1-16 (canceled).

17. (Currently amended) A method of measuring electrical power conducted through at least one electrical conductor, comprising the following steps:

- sensing an electromagnetic field around said at least one electrical conductor at a measuring position, wherein said sensing is effected by means of an electrically conductive coil arranged around said at least one electrical conductor,
- deriving current flowing through said at least one electrical conductor from said sensed electromagnetic field,
- storing instantaneous values for said current in an electronic memory means powered by said electromagnetic field, and

- transmitting digital information on said at least one electrical conductor to a transceiver provided at a distance from said measuring position, said digital information being representative of said instantaneous values.

18. (Previously presented) A method according to claim 17, wherein said transmitting is effected by means of frequency shift keying.

19. (Canceled).

20. (Currently amended) An electrical power meter connectable to at least one electrical conductor, said power meter comprising:

- means for sensing an electromagnetic field around said at least one electrical conductor, wherein said means for sensing comprises an electrically conductive coil arranged around said at least one electrical conductor.
- means for deriving current flowing through said at least one electrical conductor from said sensed electromagnetic field,
- means for storing instantaneous values for said current, wherein said means for storing are powered by said electromagnetic field, and

- means for transmitting digital information on said at least one electrical conductor to a transceiver provided at a distance from said measuring position, said digital information being representative of said instantaneous values.

21. (Previously presented) A meter according to claim 20, comprising:

- at least one first connector connectable to said at least one electrical conductor,
- at least one second connector connectable to an electric load, and
- a switch arranged to interconnect said at least one first and second connectors in normal operation and, when commanded, to disconnect said at least one first connector from said at least one second connector.

22. (Previously presented) A meter according to claim 21, wherein said switch means is commanded by a processor.

23. (Previously presented) A meter according to claim 22, wherein said processor is commanded by said transceiver via said at least one electrical conductor.

24. (Previously presented) A meter according to claim 20, comprising at least one module arranged to be installed as a fuse.

25. (Previously presented) A meter according to claim 20, wherein said meter is arranged for measuring three-phase power, comprising:

- a first module including:
  - a first connector connectable to said at least one electrical conductor, and
  - a second connector connectable to an electric load and to said first connector, and
- two second modules, each of said second modules including:
  - a first connector connectable to said at least one electrical conductor, and
  - a second connector connectable to an electric load and to said first connector,
- wherein each of said second modules is electrically connectable to said first module by interconnecting means arranged to be permanently attached to said first and second modules.

26. (Previously presented) A meter according to claim 25, wherein said interconnecting means comprises a strip made of fragile material, said strip having a layer of electrically conducting paths thereon.

27. (Previously presented) A meter according to claim 26, wherein said fragile material is polyester.

28. (Previously presented) A meter according to claim 25, wherein said interconnecting means are inserted into slots when permanently attached.

29. (Previously presented) A meter according to claim 20, wherein said means for transmitting digital information comprises:

- a processor, and
- a coil arranged around said at least one electrical conductor, the ends of said coil being connected to said processor,
- wherein an electric current commanded by said processor is induced in said coil, resulting in a corresponding induced current in said electrical conductor, by which induced current digital information is transferred via said electrical conductor.

30. (Previously presented) A meter according to claim 29, wherein the number of turns of said coil is about 500.

31. (Previously presented) A meter according to claim 20, wherein said digital information is transmitted by means of frequency shift keying.

32. (Presented previously) A meter according to claim 20, wherein the current flowing through said at least one electrical conductor is measured at a rate of 1000 samples per second.

33. (Currently amended) A system for measuring electrical power, comprising:

- (a) an electrical power network,
- (b) a computer connected to said power network, and
- (c) an electrical power meter connected to said electrical power network, said electrical power network comprising:
  - means for sensing an electromagnetic field around said at least one electrical conductor, wherein said means for sensing comprises an electrically conductive coil arranged around said at least one electrical conductor.

- means for deriving current flowing through said at least one electrical conductor from said sensed electromagnetic field,
- means for storing instantaneous values for said current, wherein said means for storing are powered by said electromagnetic field, and
- means for transmitting digital information on said at least one electrical conductor to a transceiver provided at a distance from said measuring position, said digital information being representative of said instantaneous values.

34. (New) A method according to claim 17, wherein said electrically conductive coil is wound around said at least one electrical conductor.

35. (New) A meter according to claim 20, wherein said electrically conductive coil is wound around said at least one electrical conductor.

36. (New) A system according to claim 33, wherein said electrically conductive coil is wound around said at least one electrical conductor.